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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,002	05/10/2001	Soo-Han Park	1349.1024	4122

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EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/852,002	PARK, SOO-HAN	
	Examiner	Art Unit	
	Kim-Kwok CHU	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on May 2, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5-12,15-17,20-27,31 and 32 is/are allowed.
- 6) ☒ Claim(s) 3,4,13,14,18,19 and 28 is/are rejected.
- 7) ☒ Claim(s) 29 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Remarks

1. Applicant's Remarks filed on May 02, 2005 have been fully considered.

(a) the rejected claims 1, 2 and 29 are allowable over prior art based on the amendment; and

(b) The final rejection is withdrawn because claims 3, 4, 13, 14, 18, 19 and 28 are rejected with a newly found art.

Claim Objections

2. Claims 28, 29 and 30 are objected to because of the following informalities:

(a) in claim 28, line 9, the term "a 0 order light and the sub-rays are 1 order lights" should be changed to --"a zero order light and the sub-rays are first order light--; and

(b) similarly, in claims 29 and 30, the terms "a 0 order light and the sub-rays are 1 order lights" should be changed to --a zero order light and the sub-rays are first order light--;

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

4. Claims 3, 4, 13 and 14 are rejected under 35 U.S.C. § 102(b) as being anticipated by Mori et al. (U.S. Patent 5,717,674).

Mori teaches a compatible disk player having all the elements and means as cited in claims 3 and 4. For example, Mori teaches the following steps:

(a) as in claim 3, a first laser diode 1 emits a first laser beam to a first optical disk; (Fig. 1; column 6, lines 30-40);

(b) as in claim 3, a second laser diode 2 emits a second laser beam to a second optical disk; (Fig. 1; column 6, lines 30-40));

(c) as in claim 3, a single diffraction grating 3 selectively splitting the first and the second laser beams into three rays depending on which optical disk is to be accessed (Fig. 1; column 8, lines 54-65);

(d) as in claim 3, the three rays comprise a main ray and two sub-rays depending on which optical disk to be accessed (Fig. 1; column 8, lines 54-65);

(e) as in claim 3, a photodetector 7, 8 selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions for data recording and/or reproduction and error detection and compensation (Fig. 1; column 10, last 2 lines to column 11, first 11 lines);

(f) as in claim 3, the detecting portions (in photodetector 7, 8) comprise a central detecting portion 7a and two peripheral detecting portions 7b (Figs. 1 and 7; each detecting portion such as 7 has the claimed three regions);

(g) as in claim 3, receives the main ray of the first laser beam on the central detecting portion to determine a focus error (Fig. 1; column 10, last 2 lines to column 11, first 11 lines); and

(h) as in claim 4, the photodetector 7, 8 receives the sub-rays of the first laser beam on the peripheral detecting portions to determine a tracking error Fig. 1; column 10, last 2 lines to column 11, first 11 lines).

5. Claims 13 and 14 have limitations similar to those treated in the above rejection, and are met by the references as discussed above. Claim 13 however also recites the following limitations which are also taught by the prior art of Mori et al.

(a) the photodetector is a six-split photo-detector comprising four cells on a central detecting portion and two cells on peripheral detecting portions (Fig. 7).

6. Claims 18 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Mori et al. (U.S. Patent 5,717,674).

Mori teaches a method of recording and/or reproducing data with a compatible optical disk player having all the steps as cited in claims 18 and 19. For example, Mori teaches the following steps:

(a) as in claim 18, emitting a first laser beam to a first optical disk; (Fig. 1; column 6, lines 30-40);

(b) as in claim 18, emitting second laser beam to a second optical disk; (Fig. 1; column 6, lines 30-40));

(c) as in claim 18, selectively splitting the first and the second laser beams into three rays depending on which optical disk is to be accessed (Fig. 1; column 8, lines 54-65);

(d) as in claim 18, the three rays comprise a main ray and two sub-rays depending on which optical disk to be accessed (Fig. 1; column 8, lines 54-65);

(e) as in claim 18, selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions 7, 8 for data recording and/or reproduction and error detection and compensation (Fig. 1; column 10, last 2 lines to column 11, first 11 lines);

(f) as in claim 18, the detecting portions 7, 8 comprise a central detecting portion 7a and two peripheral detecting portions 7b (Figs. 1 and 7; each detecting portion such as 7 has the claimed three regions);

(g) as in claim 19, receives the main ray of the first laser beam on the central detecting portion to determine a focus error (Fig. 1; column 10, last 2 lines to column 11, first 11 lines); and

(h) as in claim 19, receives the sub-rays of the first laser beam on the peripheral detecting portions to determine a tracking error Fig. 1; column 10, last 2 lines to column 11, first 11 lines).

7. Claim 28 is rejected under 35 U.S.C. § 102(b) as being anticipated by Mori et al. (U.S. Patent 5,717,674).

Mori teaches a method of recording and/or reproducing data with a compatible optical disk player having all the steps as cited in claim 28. For example, Mori teaches the following steps:

(a) as in claim 28, selectively emitting a first laser beam of a first wavelength recording and/or reproducing the data on/from a first optical disk comprising a first recording density; (Fig. 1; column 6, lines 30-40);

(b) as in claim 28, selectively emitting a second laser beam of a second wavelength recording and/or reproducing the data on/from a second optical disk comprising a second recording density; (Fig. 1; column 6, lines 30-40);

(c) as in claim 28, selectively splitting the first and the second laser beams with a single diffraction grating 3 into a main ray and two sub-rays depending on which optical disk is to be accessed (Fig. 1; column 8, lines 54-65);

(d) as in claim 28, the main ray is a zero order light and the sub-rays are first order lights (Fig. 1; column 8, lines 54-65);

(e) as in claim 28, selectively reflecting (diffracting) the first laser beam toward the first optical disk and the second laser beam toward the second optical disk (Fig. 1);

(f) as in claim 28, selectively focusing the first laser beam toward the first optical disk and the second laser beam toward the second optical disk (Fig. 1);

(g) as in claim 28, selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions 7, 8 for data recording and/or reproduction and error detection and compensation (Fig. 1; column 10, last 2 lines to column 11, first 11 lines); and

(h) as in claim 28, the detecting portions 7, 8 comprise a central detecting portion 7a and two peripheral detecting portions 7b (Figs. 1 and 7; each detecting portion such as 7 has the claimed three regions).

Allowable Subject Matter

8. Claims 1, 2, 5-12, 15-17 20-27 and 29-32 are allowable over prior art.

9. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 5, 17, 20, 29 and 32, the prior art of record fails to teach or fairly suggest the following features:

(a) the photodetector receives the main ray of the second laser beam on one of the peripheral detecting portions to record and/or reproduce the data on/from the second optical disk; and

(b) the photodetector receives one of the two sub-rays of the second laser beam on the central detecting portion to determine a focus error and a tracking error on the second optical disk.

As in claims 12 and 27, the prior art of record fails to teach or fairly suggest the following features:

(a) an error occurring due to initial positions of the first laser diode and the second laser diode is compensated for by selectively moving the diffraction grating between a first position and a second position; and

(b) the first position being such that the main ray of the first laser beam is incident on the central detecting portion, while the two sub-rays are incident on the peripheral

detecting portion, and the second position being such that the main ray of the second laser beam is incident on one of the peripheral detecting portions, while one of the two sub-rays is incident on the central detecting portion.

As in claims 15 and 30, the prior art of record fail to teach or fairly suggest the following features:

(a) receiving the main ray of the first laser beam on four cells of the central detecting portion to determine a focus error and to record and/or reproduce the data on/from the first optical disk;

(b) receiving the sub-rays of the first laser beam on two cells of the peripheral detecting portions, respectively, to determine a tracking error;

(c) receiving the main ray of the second laser beam on one of the two cells of the peripheral detecting portions to record and/or reproduce the data on/from the second optical disk; and

(d) receiving one of the two sub-rays of the second laser beam on the four cells of the central detecting portion to determine a focus error and a tracking error on the second optical disk.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch, can be reached on (57) 272-7589.

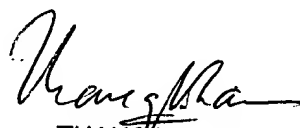
The fax number is:

(571) 273-8300 (for formal communications intended for entry. Or:

(571) 273-7585, (for informal or draft communications, please label "PROPOSED" or "DRAFT").

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THANG V. TRAN
PRIMARY EXAMINER

Kim-Kwok CHU

kc 5/15/06
Examiner AU2627
May 15, 2006

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